

What is claimed is:

1. A resin composition, comprising:
a thermoplastic resin; and
an oxidized compound having a hydrophobic group and a polar group on
5 the surface thereof.
2. A resin composition according to claim 1,
wherein the polar group includes a hydroxyl group.
- 10 3. A resin composition according to claim 2,
wherein the polar group includes a polar group other than the hydroxyl
group.
4. A resin composition according to claim 3,
15 wherein a percentage of the other polar group is 50% or more based on
the whole polar group.
5. A resin composition according to claim 3,
wherein the other polar group is at least one selected from an amino group,
20 an ether group, an ester group, a nitro group, a cyano group, and an epoxy group.
6. A resin composition according to claim 1,
wherein a percentage of the hydrophobic group in the oxidized compound
is within a range of 30 to 70% based on the whole of the hydrophobic group and
25 the polar group.
7. A resin composition according to claim 1,
wherein the hydrophobic group is at least one selected from an alkyl
group, an allyl group, and an aryl group.

8. A resin composition according to claim 1,
wherein a length of at least one side of the oxidized compound is within a
range of 1 to 200 nm.
- 5 9. A resin composition according to claim 1,
wherein a length of the longest side of the oxidized compound is 380 nm
or less.
- 10 10. A resin composition according to claim 1,
wherein an amount of the oxidized compound added into the
thermoplastic resin is within a range of 1 to 60% by weight.
- 15 11. A resin composition according to claim 1,
wherein the thermoplastic resin includes acrylic resin and/or methacrylic
resin.
12. A resin composition according to claim 1,
wherein the thermoplastic resin is polycarbonate resin.
- 20 13. A resin composition according to claim 1,
wherein the oxidized compound is at least one selected from the group
consisting of silica, titania, alumina, and zirconia.
- 25 14. A filler, comprising:
an oxidized compound having a hydrophobic group and a polar group on
the surface thereof.
15. A filler according to claim 14,
wherein the polar group includes a hydroxyl group.

16. A filler according to claim 15,
wherein the polar group includes a polar group other than the hydroxyl group.
- 5 17. A filler according to claim 16,
wherein a percentage of the other polar group is 50% or more based on the whole polar group.
18. A filler according to claim 16,
10 wherein the other polar group is at least one selected from an amino group, an ether group, an ester group, a nitro group, a cyano group, and an epoxy group.
19. A filler according to claim 14,
wherein a percentage of the hydrophobic group in the oxidized compound
15 is within a range of 30 to 70% based on the whole of the hydrophobic group and the polar group.
20. A filler according to claim 14,
wherein the hydrophobic group is at least one selected from an alkyl
20 group, an allyl group, and an aryl group.
21. A filler according to claim 14,
wherein the length of at least one side of the oxidized compound is within a range of 1 to 200 nm.
- 25 22. A filler according to claim 14,
wherein the length of the longest side of the oxidized compound is 380 nm or less.
- 30 23. A method of producing a resin composition, comprising:

preparing a filler containing an oxidized compound having a hydrophobic group and a polar group on the surface thereof; and
dispersing the filler in a thermoplastic resin.

5 24. A method of producing a resin composition according to claim 23,
 wherein the dispersing comprises: dispersing the filler in a solution
 containing a monomer constituting the thermoplastic resin; and polymerizing the
 monomer.

10 25. A method of producing a resin composition according to claim 23,
 wherein the hydrophobic group and the polar group are formed by
 replacing a hydroxyl group on a surface of the oxidized compound by using a
 surface modifier.

15 26. A vehicle part comprising:
 a resin composition including a thermoplastic resin and an oxidized
 compound having a hydrophobic group and a polar group on the surface thereof.

20 27. A vehicle part according to claim 26,
 wherein the vehicle part is at least one selected from a molded exterior
 part, an outer plate, a wiper, a door mirror stay, a pillar, a window provided with a
 heating coil, a mirror, a lamp reflector, a cover in an engine room, a case in an
 engine room, a part in a cooling unit, a part which stores hydrocarbon fuels, and a
 container which stores hydrocarbon fuels.

25 28. A vehicle part according to claim 26,
 wherein the vehicle part is a molded resin product, and
 the molded resin product has a transparent part and an opaque part, and
 the resin composition is contained in at least the transparent part.

29. A vehicle part according to claim 28,
wherein the transparent part and the opaque part are integrally molded.
30. A vehicle part according to claim 28,
5 wherein the opaque part is formed by coloring with a pigment dispersed
in the resin composition.
31. A vehicle part according to claim 28,
wherein the opaque part is formed by coating or printing before or after
10 molding.
32. A vehicle part according to claim 28,
wherein the opaque part is formed by using a colored sheet.
- 15 33. A vehicle part according to claim 26,
wherein the vehicle part is a cover in an engine room or a case in an
engine room, and
a resin composition-containing part in the cover or the case is transparent.
- 20 34. A vehicle part according to claim 26,
wherein the vehicle part is an integrally molded resin product having a
hollow structure communicating with the air and/or a closed hollow structure.
35. A vehicle part according to claim 34,
25 wherein a gas, liquid, solid or a mixture of two or more thereof is packed
and sealed in the hollow structure.
36. A vehicle part according to claim 34,
wherein the outermost layer of the integrally molded resin product is
30 constituted by a decorative material.

37. A vehicle part according to claim 34,
wherein the integrally molded resin product is applied to an outer plate or
an interior part for automobiles.

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38. A vehicle part according to claim 26,
wherein the vehicle part is an integrally molded part which comprises two
or more parts having different functions.

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39. A vehicle part according to claim 26,
wherein the vehicle part is a molded product having a movable part and
an unmovable part.

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40. A vehicle part according to claim 39,
wherein the movable part and the immovable part in the vehicle part are
formed integrally by two-color molding.

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41. A vehicle part according to claim 39,
wherein the movable part is an openable/closable lid which regulates
movement of a gas, and the unmovable part is a cylindrical molded product which
introduces the gas.

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42. A vehicle part according to claim 26,
wherein the vehicle part is a part which stores hydrocarbon fuels, and
the part which stores the fuels constitutes a series of fuel parts for
vehicles.

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43. A vehicle part according to claim 26,
wherein the vehicle part is a container which stores hydrocarbon fuels,
and

the container which stores fuels constitutes a fuel tank for vehicles.

44. A vehicle part according to claim 43,
wherein the container which stores fuels is molded by blow molding.

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45. A method of producing an integrally molded resin product, comprising:
preparing a resin composition including a thermoplastic resin and an
oxidized compound having a hydrophobic group and a polar group on the surface
thereof;

10 inserting the resin composition into a mold; and
injecting a pressurized fluid into the resin composition to form a hollow
structure.

46. A method of producing an integrally molded resin product according to
15 claim 45,

wherein the integrally molded resin product is formed with two resin
sheets including the resin composition, and

the method further comprises:

heating the two resin sheets;

20 inserting the heated two resin sheets into the open mold;

injecting the pressurized fluid between the resin sheets before or after an
outer periphery of the resin sheets is pressed to fuse the outer periphery thereof;
and

25 closing the mold to maintain the pressure of the pressurized fluid in order
to form the hollow structure while or after the resin sheets are distended.

47. A method of producing an integrally molded resin product according to
claim 45, further comprising:

melting the resin composition;

30 injecting the melted resin composition into the closed mold; and

expanding the capacity of a cavity in the mold and simultaneously injecting the pressurized fluid into the melted resin composition to form the hollow structure.

- 5 48. A method of producing an integrally molded resin product according to claim 45,

wherein the integrally molded resin product is formed with one or two resin sheets including the resin composition, and

the method further comprises:

- 10 inserting the resin sheet into a cavity in the open mold;
closing the mold; and

expanding the capacity of the cavity in the mold while or after a melted resin is charged into the back surface of the resin sheet, and simultaneously injecting the pressurized fluid into the melted resin to form the hollow structure.